

# SCIENTIFIC AND TECHNOLOGICAL ADVANCEMENT VERSUS AFRICAN CULTURAL VALUES: A PHILOSOPHICAL EVALUATION

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## **Abstract**

This study focuses on a philosophical evaluation of the impact of science and technology on African cultural values. Every society has some specific values that are peculiar to it. Those values could be said to have been determined by the culture of that society, and at the same time an essential aspect of the society's culture. African society is not an exception to this. Obviously, there are some cultural values in African society. The advent of western science and technology as well as their remarkable development in the modern period has enormous influence on African cultural values. The basic questions are: What are the African cultural values? Have science and technology any impact on such values? What are the positive contributions of science and technology towards the values in question? Have African cultural values remained the same in the midst of western scientific and technological advancement. Is it possible for Africans to rediscover their lost values? Should Africans sacrifice their cultural values on the altar of science and technology? These and other related issues are the major concerns of this study. This study employs hermeneutical method of philosophical inquiry to examine the impact of science and technology on traditional African values. The researcher acknowledges that science and technology have made positive contributions in reshaping the world. However, the study maintains that advancement in science and technology has adverse effects on African cultural values. Hence, there is need for rediscovery of African rich cultural values, but in a manner that would meet the challenges of modernity.

**Keywords:** Science, Technology, Africa, Culture, Value

## **Introduction**

Man is a social being, and thus interacts with one another in the society. Human interaction in every society is guided by some values. Such values are held in high esteem by the members of a particular society. Values differ from society to society. Hence, every society has her unique and peculiar values. African society has some unique cultural values. African cultural values have not remained the same after contact with modern western science and technology. Scientific and technological advancement has great influence on such values.

Science and technology are related concepts. However, they are not synonymous but are quite different. Science provides the knowledge while technology provides the skill or art. Technology may be said to be practical application of scientific knowledge. Science and technology have improved, and are still improving human condition of existence in the universe. Suffice it to say that science and technology have both positive and negative effects on African traditional values. In the contemporary society, people are becoming more and more dependent on science and technology. In this contemporary period, the world has experienced tremendous advancement in science and technology. Thus, it may be very revealing to investigate, and evaluate philosophically the impact of scientific and technological advancement on African cultural values. There are many cultural values in African society as identified by different scholars, but this study limits its scope to only four of them, viz., sense of community life, sense of sacredness of life, sense of the sacred and of religion as well as sense of respect for elders. This study employs basically philosophical method of hermeneutics, which is an art of interpretation. It ought to be noted that traditional African values are quite different from modern African values. Values in modern African society are largely influenced by western culture as well as science and technology.

### **Conceptual Clarification**

Clarification of concept is very necessary in philosophical discourse. It sharpens one's understanding of a concept. An ancient philosopher, Socrates, is well known for the good habit of conceptual clarification through his method of intellectual midwifery. This is very evident in his philosophy. In the Plato's Dialogue *Euthyphro* (1952:193), Socrates asked his interlocutor: "What is piety, and what is impiety?" Obviously, Socrates was seeking for conceptual clarification, which he considered very fundamental in philosophical discourse. Clarification of terms is an essential aspect of philosophical investigation. Thus, there is need to clarify the major terminologies used in this study so as to foster proper understanding and appreciation of the discussions in this study. The key concepts used in this study include: **Science, Technology and Value**. The term **Science** is one of the concepts that are frequently used today. Some people confuse it with technology. Though the two terms are related, they are not synonymous; and so cannot be used interchangeably. Fundamentally, science is a body of knowledge that is attained through a systematic and ordered approach. Knowledge can be attained through various approaches, but scientific knowledge is quite unique in its approach which is systematic, empirical, inductive and experimental. Science is essentially theoretical because it focuses on the formulation of theories. Scientific knowledge is embedded in theories. Such theories offer unique explanations of phenomena in the universe. Science, in its classical formulation according to Ogbozo C.N.

(2014:89), is *certa cognitio rerum per causas* and his Latin expression, if translated into English, means *the certain knowledge of things through the causes*. This implies that science seeks for certainty in the attainment of knowledge. It employs a systematic approach in the search for the knowledge that is certain, though absolute certainty may not be completely possible. Samir Okasha (2002:1) partly describes science as “the attempt to understand, explain, and predict the world...” He further observes that experimentation, observation and theory-construction distinguish science from other disciplines. According to him (2002:2):

Many people believe that the distinguishing features of science lie in the particular methods scientists use to investigate the world. This suggestion is quite plausible. For many sciences do employ distinctive methods of enquiry that are not found in non-scientific disciplines. An obvious example is the use of experiments, which historically marks a turning-point in the development of modern science. Not all the sciences are experimental though- astronomers obviously cannot do experiments on the heavens, but have to content themselves with careful observation instead... Another important feature of science is the construction of theories. Scientists do not simply record the results of experiment and observation in a log book- they usually want to explain those results in terms of a general theory.

From the foregoing, it is obvious that science is an ordered and unified investigation that is empirically bound. Some other scholars have similar descriptions of science. According to Eugene Anowai (2017:1), science is “the pursuit of knowledge and understanding of the natural and social world following a systematic methodology based on evidence.” This description of science emphasizes the systematic nature of scientific investigation. Ogbozo Chrysanthus Nnaemeka (2014:92-96), brought out different characteristics of science, and they include: positivism, objectivism, rationalism, verifiability, induction and autonomy. However, science is to be understood in this study as a systematic, observational as well as empirical investigation and explanation of phenomena in the universe. In its investigation of the phenomena in the universe, science employs dominantly the inductive method. Scientific knowledge is unique and it is different from other forms of knowledge because of its unique approach. It becomes very clear from the discussions so far that science focuses on the attainment of unique knowledge, and is quite different from technology as would be demonstrated in this study.

The term **Technology** was derived from two Greek words *techne* and *logos*. *Techne* means art or craft, while *Logos* means word or discourse or study. Thus, from etymological perspective, technology means the science or study of art or craft. Scholars describe technology in varied but related ways. W. A. Wallace (1967:1191) notes that by the second half of the Century, *technology* was seen as “the means or activity by which man seeks to change or manipulate his environment.” This implies that technology enables man to make better use of his environment. In a similar way, C. E. Uzor (2015:169) sees technology as “the general term for the processes by which human beings fashion tools and machines to increase their control and understanding of the material environment.” From this perspective, technology brings about man’s increased control of the universe. He further describes technology as the practical expression of science. In his words (2015:171): “In addition, technology is often defined as applied science. It is simply the application of scientific knowledge to achieve a specific human desire.” Thus, technology depends on science because it makes use of scientific knowledge in its operation. It applies scientific knowledge in the use of the material and natural resources in our environment to satisfy human needs. On his part, T. S. Reynolds (2001:74) defines technology as “the inventions - including tools, techniques, and processes - that people make and use to survive and prosper.” T. M. Smith (1967:967) has similar description of technology. For him, it “embraces a variety of practical activities that provide goods and services for man’s use, enjoyment, and welfare” and He further describes it as “the application of scientific understanding of natural phenomena....” This brings out very well the relationship between science and technology, and underscores the fact that science and technology go hand in hand. In fact, they can be said to be complimenting each other. Technology is to be understood in this study as the inventive application of scientific knowledge in manufacturing equipment and tools that improve human condition of existence in the universe.

Another important concept that needs clarification in this study is ‘**Value**’. The term ‘value’ is often used by people, but most often not properly understood. Every society has some values which the members uphold. Even an individual may have some values in life. Values are considered to be very important guide or principle of action. According to S. Iniobong Udoidem (1992:2):

The term Value is variedly interpreted in various disciplines. In economics it is understood in terms of cash worth. But in Ethics or Moral Philosophy (whose understanding of value this text is concerned with) values are cherished principles,

goals or standards or ways of life held or accepted as desirable by an individual, class or society.

Thus, values are the principles or ways of life accepted by a particular society or an individual. For Igboin (2017:96-103), they “are the standard which members of the community adhere to in their personal and communal interaction towards the achievement of the goals.” From the foregoing, it is obvious that values have to do with that which is good or desired, and thus cherished by a society or an individual. Values can be material, spiritual, religious, moral, aesthetical, communal or individualistic. They are immanent in all religions. Hence Igboin (2017:96-103), “people’s values are largely based upon traditional religious and moral principles that they cling to.” In other words, people’s religion and moral principles determine their values. In this discourse, attention is focused mainly on values in African traditional society with particular reference to the Igbo people.

### **The Benefits/Contributions of Science and Technology**

Science and technology have contributed immensely to the development of different countries in the world. In fact, I wonder how the world would be today without science and technology. The inventions of science and technology have improved and are still improving human condition of existence in the universe. These inventions benefited many nations, and are still benefitting them today. The importance of scientific and technological inventions can never be over emphasized. In the words of R.A. Buchanan (1974:23), Technology has “produced incalculable material benefits for the developed nations... [and] the underdeveloped nations...” This extends to every sector of human existence in the universe. For instance, science and technology have improved the practice of agriculture. Thus for Reynolds (2001:76), “the use of tractors, chemical fertilizers, pesticides, and new plant breeds has increased food production all over the world.” In our contemporary society, agriculture has been mechanized; and this has been of immense benefit to man. More so Reynolds (2001:76) opined that “transportation systems and refrigeration technology enable people in industrial countries to enjoy a variety of foods, ranging from fruit grown in the tropics to fish caught near the Arctic Circle.” Perishable agricultural products can now be stored for a long time for human consumption. This reduces wastage to a very reasonable extent.

Science and technology have done a lot in improving human condition of existence in the universe in the area of transportation. It is now very easy for people to travel from one part of the world to another through land, air or water. This facilitates transactions and improves the quality of human interactions. In the words of T. S. Reynolds (2001:76):

The development of trains, automobiles, and airplanes has given many people the ability to travel far from their place of birth for both business and pleasure. New communication technologies, such as satellites, televisions, and the World Wide Web, allow people to see things thousands of miles away without ever leaving their homes.

Closely related to transportation is the issue of communication. In the distant past, it was very difficult for people to communicate with others in the different parts of the world. Science and technology have done a lot in the domain of human communication. Today, communication is facilitated through the inventions of sophisticated mobile phones, email system, and most importantly the internet system. One can easily and without much stress communicate with people in any part of the world. The 'Internet' has contributed immensely in making the world a global village. This stems from the fact that one can have access to what happens in any part of the world through the internet. According to Eluwole et al (2014:3) "Today, the Internet is a global phenomenon having instantaneous capability of providing immense online amount of information relating education, sports, commerce, entertainment, and all walks of life." Obviously, the internet has improved human standard of life in the universe, though there are also some problems associated with it.

Suffice it to say that science and technology have also led to the production of electricity, sophisticated printing press, chemicals, atomic and nuclear bombs, computer, drugs etc. All these have been beneficial to man in one way or the other, though some of them like atomic and nuclear bombs have led to the destruction of human life. From the foregoing, it is obvious that the importance of science and technology to human life can never be over emphasized.

Haven analyzed the concepts of science and technology as well as their benefits to man, let us at this juncture look at the African cultural values in order to discover the effects of science and technology on them.

### **Traditional African Cultural Values**

There are some values that were upheld in the traditional African society. These values were highly cherished in the traditional African society, and they provided the basic principles that guided the actions of Africans in the traditional society. Oliver A. Onwubiko (1991:13) outlined the following African Cultural values:

- (i) Sense of community life;
- (ii) Sense of good human relations;
- (iii) Sense of the sacredness of life;
- (iv) Sense of hospitality;
- (v) Sense of the sacred and of religion;
- (vi) Sense

of time; (vii) Sense of respect for authority and the elders; (viii) Sense of language and proverbs as cohesive of the community based on the truth.

In partial agreement with the values outlined above, Sunday Awoniyi (2015:1), came up with his own list of traditional African cultural values. For him, such values provide a good guide for the behavior of people in African society. In his words:

In African society, there are a set of values that guide the behavior of every member. Specific mention could be made of values such as hospitality, chastity before marriage, truth, and respect for old age, covenant keeping, hard work and good character. In African community there are proverbs, maxims used to inculcate social and moral values in order to regulate their interpersonal relationships.

In a similar way, Ogbujah Columbus (2014:24) identified some traditional African cultural values that are related to the ones above. According to him:

African cultural values thus pertain to those social ideals indigenous to African people...These range from their sense of community, to their sense of the sacredness of life, hospitality, time, respect for authority and the elders; from their sense of the sacred and of religion, to their sense of language and proverbs etc.

Certainly, there are other African cultural values identified by other scholars. The ones articulated above are not in any way exhaustive. However, those other African values are in one way or the other related to them. These values and other related ones are very necessary in African culture, and every member of the society is expected to imbibe and practice them. It must be stated at this juncture that this study limits itself to the examination of only four of the identified African cultural values, viz., sense of sacredness of life, sense of the sacred and of religion, sense of community life as well as sense of respect for old age. Let us at this juncture examine the selected African traditional values in order to unravel the influence of scientific and technological advancement on them.

**Sense of Sacredness of Life:** The researcher has decided to discuss this value first because of its importance for the African people. Sense of sacredness of human life is one of the fundamental cultural values of the Africans. This stems from the fact that Africans have high regard for human life and anything that has to do with human life. Thus, anything that destroys human

life is never encouraged in African society. Abortion is not in any way cherished in the traditional African society. Birth used to be associated with celebrations. Violence has no place in the life of an African man. In the words of Nwauzor Adaku A. (2014):

The African society places premium on the mutual respect and regard for each other's life. It was also abominable to spill blood unless during the period of war. African's prize life above every other thing. The land and certain deities were regarded as sacred. Libations and prayers were made to them for human protection and property, longlife, favourable weather conditions, peace, prosperity and bounty harvest.

Thus, it is a taboo to unlawfully shed another man's blood. This is because of the high regard traditional Africans had for human life. Consequently, shedding of blood is abhorred.

In African ontology, life begins from the period of conception. This is followed by the rite of passage. This is as a result of the fact that life is of great importance in African ontology. According to A. I. Kanu (2013:144): "At the point of conception, it is not just about human involvement, the divine is also involved. This is why, during the rites of pregnancy, the divine order is acknowledged and actualized." It ought to be noted that the whole pregnancy rite is geared towards facilitating the birth of the child. Hence Kanu (2013:144) opines that, "efforts are directed towards protecting the child and securing his future if he is eventually born." This demonstrates the fact that Africans have regard for human life, and as such they hold life in a very high esteem.

Africans believe that life comes from the Supreme Being (Chi-Ukwu), and as such it is sacred. Thus, Igbo people answer names like *Chinenyendu* (God gives life), *Chinwendu* (God is the owner of life), *Ndusinachi* (Life is from God). The importance attached to human life in African worldview demonstrates the fact that the desire for life among Africans as well as its protection is of prime importance. From the foregoing, it is obvious that life is of great importance for the Africans, and it is sacred.

**Sense of Community:** Sense of community is another cultural value of the traditional Africans. They attach much importance to communal life. Oliver A. Onwubiko (1991:14) expresses this very well. According to him:

The African idea of security and its value depends on personal identification with and within the community. Communalism in Africa is a system that is both



suprasensible and material in its terms of reference. Both are found in a society that is believed by the Africans to be originally “godmade” because it transcends the people who live in it now, and it is “Man-made” because it cannot be culturally understood independent of those who live in it now. Therefore, the authentic African is known and identified in, by and through his community. The community is the custodian of the individual, hence he must go where the community goes.

Life in the traditional Africa is community-centred. The individual is understood in relation to the community, and is expected to follow the thought pattern of the society. Onwubiko (1991:14-15) further states that:

In another sense, the community offers the African the psychological and ultimate security as it gives its members both physical and ideological identity. It must be noted that in the African mentality, the community as an entity remains, while individuals, as persons, come and go. Therefore the Africans emphasizes community life and communalism as a living principle of which the basic ideology is community-identity. Its aim is to produce and present an individual as a community-culture-bearer. Culture is a community property and must therefore be community-protected.

Individualism is not encouraged in traditional African society, and in fact has no place in it. Living together and doing things communally characterized life in traditional African society. This is the logic behind the extended family system. This explains why much emphasis is placed on belongingness and community-spirit. P. Oguguo (2014:257) identified the principles that are the foundations of Igbo-African communalism thus: “harmony, relationship, belongingness, participation, solidarity, common good and solidarity.” All these boarder and revolve around good sense of community life. This sense of community seems to be one of the outstanding distinguishing features of traditional African society.

**Sense of the Sacred and of Religion:** Traditional Africans had a deep sense of the sacred and were deeply religious. Religion seems to occupy a central position in the life of traditional African people. John Mbiti (1969:1) observes that “Africans are notoriously religious....Religion permeates into all the department of [their] life so fully that it is not possible to isolate it.” African people are very religious. Religion is the most sensitive and active aspect of African culture. It is at the center of the African life. African culture depends

on religion for it to have meaning. There exists a serious relationship between African culture and religion. There is in fact, no border line between their religion and culture. Buttressing this point further, John Mbiti (1969:2) aptly sums up the relationship between African Traditional Religion and African Culture thus:

...wherever the African is, there is his religion: he carries it to the fields where he is sowing seeds or harvesting a new crop; he takes it with him to the bear party or to attend a funeral ceremony; if he is educated, he takes religion with him to the examination room at school or in the university; if he is a politician he takes it to the house of parliament.

Gabriel E. Idang (2015:2) is in complete agreement with Mbiti on the relationship between African traditional religion and African culture. In his words:

African religious values seem to permeate every facet of the life of the African and the African believes that anything can be imbued with spiritual significance. The worship of different deities on different days goes on to show that the African people hold their religious values in high esteem. Sorcerers and diviners are seen to be mediating between God and man and interpreting God's wishes to the mortal. The diviners, sorcerers and soothsayers help to streamline human behaviour in the society and people are afraid to commit offences because of the fear of being exposed by the diviners and sorcerers.

P. K. Sarpong (2017) also has similar view on this issue. He stresses and buttresses the connectivity between African traditional religion and African culture thus:

African cultures are known for their religious orientation. In fact, African cultures are religious cultures. It is not possible to study African culture in isolation from religion. Religion permeates the ideal African from cradle to grave. African traditional religion, therefore, comes into play in the shaping of the African's future. We have to know the past in order to understand the present and be better equipped to plan the future. We cannot know the past of the African if we neglect his religion. Traditional religion is part of the African's ethos.

African culture embodies religion as one of its institutional elements. It influences and permeates other institutional elements like the family, economy, politics or government, education, social relationships and so on. The African worldview is Theo-centric in the sense that the universe was created by a Supreme Being, and also sustained by such Being.

African sense of sacred as well as religion is deep rooted. Traditional Africans see some trees, rivers, mountains, animals and so on as embodiments of the gods, and thus sacred. Religious activities are centered on such objects. Those sacred objects are of great importance in the religious life of traditional Africans.

**Sense of Respect for Elders:** Sense of respect for elders was a very important value in the traditional African society. Old age was conceived in the traditional African society as a symbol of wisdom and truth. Elders were expected to express wisdom and to be on the side of truth always. Hence, Oliver A. Onwubiko (1991:28-29) states:

The elders are taken to be the repository of communal wisdom and therefore they are conceded leadership in the affairs of the people. One of the reasons for this is the nearness of the elders to the ancestors...The respect given to the elders has its practical effect in the maintenance of custom and tradition. The young are always looking forward to being elders and they are often told that if a child respects an elder, he would be respected by the young when he becomes an elder.

The young ones are expected to greet and express regard for the elderly ones. Any young one who fails to do this is seen as one who did not receive basic family training from his parents. On the other hand, elders are expected to comport themselves very well and show good examples to others. Elaborating on this, Onwubiko (1991:29) further states:

Respect for elders also has a corresponding responsibility, on the part of the elders attached to it, and the reception of this respect is dependent on the execution of that responsibility. It is based on the reciprocal exercise of duties/rights, based on the old/young relationship. The adult who does his duty demands this right.

Haven discussed some selected traditional African cultural values; let us at this juncture examine the effects of scientific and technological advancement on such values.

## **Examination of the Effects of Scientific and Technological Advancement on African Cultural Values**

Advancement in science and technology has enormous effects on African traditional values. It ought to be noted that the examination of the effects of science and technology on African cultural values is limited to the selected African cultural values discussed above. There are myriads of effects of science and technology on African cultural values. They are both positive and negative. On a positive note, science and technology in the form of Information and Communication Technology have helped to project the rich values of the Africans to the whole world. Technological inventions have equally aided in refining the traditional African medicine. More so, through press, African ideas are being communicated to the international communities. There are other positive aspects of science and technology as articulated earlier in this study under the section ‘The Benefits/Contributions of Science and Technology’. Nevertheless, the adverse effects of science and technology on African cultural values are enormous, and this forms the central focus of this section of the study.

Among the African traditional values discussed in this study is ‘Sense of Sacredness of Life’. Advancement in science and technology has adverse effect on this value. It seems to the researcher that African ‘sense of sacredness of life’ has drastically reduced in the midst of advancement in science and technology. The rate at which life is destroyed today is quite alarming. Abortion was not cherished in traditional African society, but today it is fashionable for people to commit abortion. In the contemporary African society, abortion is now common due to large production of contraceptive pills as well as drugs that can terminate the life of the unborn child. Production of weapons of mass destruction poses great threat to human life in the contemporary society. Also, through internet, television, cinema e.t.c, young people are exposed to violence and killings through watching of violent movies, and this has made them to lose the sense of sacredness of life. Some young people tend to imitate such violence and killings. According to N.L. Abanyam (2013:4):

...many western electronic games, movies, literature and bad models promote immorality, profanity, and violence. Some of them (games) glorify occult practices and features gang wars, drug use, explicit sexual content, foul language and intense violence. Studies repeatedly show that watching violent entertainment increases aggression in those who view it ... Aggression and violence are learned by watching foreign movies. When the youths witnessed violent display in these movies, they tend to conclude that violence is a way of life.

Gangsterism and modern cultism in many higher institutions in Africa may be an extreme of foreign technology. Today, African youths smoke marijuana and other dangerous substances, they maimed, loot, rape, shop lift, hired as thugs, steal and hawk drugs. These compelled them to engage in crime which impact on the society is so grievous.

Violence is a serious threat to the value of sacredness of human life. It becomes obvious that African traditional value of sense of sacredness of life has drastically reduced in the face of scientific and technological advancement.

More so, the technological inventions of nuclear and atomic bombs, missiles, guns and all sophisticated nuclear weapons have reduced the sense of sacredness of life which is at the core of African cultural values. For the Africans, life is sacred and ought not to be wasted. But, science and technology through the inventions like nuclear bombs, atomic bombs, guns, missiles and the likes have increased the rate of mortality. It has quickened the rate of armed robbery, and has devalued human life to the point that life is seen as almost valueless and nothing. These have given easy access to murderers, and have encouraged all sorts of wars as was evident during the World Wars.

Also, African 'sense of community' has adversely been affected by scientific and technological advancement. African 'sense of community' has actually gone down. Individualism has crept into African way of life. Scientific and technological inventions like computer, television, internet etc have encouraged individualism. It is now fashionable for young people to be on their own, browsing and assessing the internet. Interest in communal activities has actually gone down. This is fuelled by increasing suspicion that exists among people in Africa today. Also, African communalism may partly be attributed to poverty in traditional African society which necessitated mutual dependence in order to fill the lacks. Advancement in Science and technology has led to financial breakthrough, and has reduced mutual dependence among Africans in contemporary society. Such has led to increased individualism among Africans.

What of African 'sense of sacred and religion? It is obvious that the effect of science and technology on African sense of 'sacred and religion' is quite enormous. Science and technology have ushered in materialism, and as such African sense of sacred as well as religion has never been the same. Materialism is in complete opposition to deep religiosity. It is now common for people in the contemporary African society to view religion from material perspective which seems to be a contradiction. The sacredness associated with

religion in traditional Africa seems to be disappearing as a result of scientific and technological advancement.

Let us also look at African 'sense of respect for elders'. In the first place, it could be observed that the elders are no longer seen as the custodian of community wisdom and truth as it was in the traditional African society. Respect for elders has drastically gone down in the contemporary African society. Science and technology have made it possible for young people to be exposed to western movies where young people failed to express due regard for the elders and old age as it used to be in traditional African society. This has gradually led to the demystification of the mystery associated with respect for elders and old age in African world-view. Respect for old age is gradually phasing off in contemporary African society.

### **Philosophical Evaluation**

This study has examined some African traditional values as well as the changes undergone in such values as a result of advancement in science and technology. Such changes attest to the non-stagnant nature of culture as well as cultural values. In the ancient period of philosophy, the issue of change was the major point of controversy between philosophers. Heraclitus argued consistently that change is constant in life, insisting that everything changes. On the other hand, Parmenides insisted that there is no change; thus, what is, is and what is not, is not. On his part, Plato made a distinction between the physical world and the ideal world of forms. He argued that change exists in the physical world, while there is no change in the ideal world of forms. When one looks at the topic of discussion in this study, the fact of change becomes very obvious. Heraclitus was right to argue that change is constant in life. African traditional values have not remained the same due to scientific and technological advancement. It must be noted that the contributions of western science and technology towards improving human standard of living in the universe are really enormous, and thus the importance of science and technology can never be over emphasized. However, it seems to the researcher that science has encouraged materialism and enlightenment, and these have demystified some mysteries enshrined in some African traditional values. Consequently, African sense of religion as well as sacredness of life has been drastically reduced. It is now fashionable among some Africans to cling to some scientific explanations of things in the universe as opposed to mythological explanations that were enshrined with mysteries.

It is obvious that advancement in science and technology has impacted both positively and negatively on African culture in general. What then is the way forward? Should Africans sacrifice their cultural values on the altar of scientific and technological advancement or should they reject western

science and technology completely? As was already demonstrated in this study, change is an indisputable fact of human existence, and it is part and parcel of human life. This study argues and insists that there is need to recover Africans' rich cultural values, but in a manner that would meet the demands of modernity. Such recovery entails change in the right direction.

### **Conclusion**

This study explores the effects of scientific and technological advancement on African cultural values. Africans, just like every other group of people in the world, have their unique cultural values. These values have not remained the same after contact with western science and technology. Rapid advancement in western science and technology in the modern period has brought about a lot of changes. It ought to be noted that Africans had their own technology before the advent of western technology, but this seems to be relegated to the background after contact with the western one. As it is obvious from the study, there are many benefits of western science and technology, but it is also indisputable that science and technology have adverse effects on traditional African values. Thus, science and technology have both positive and negative effects on African cultural values. Advancement in Science and technology has led to the erosion of some good African traditional values. This explains why Africans have enormous role to play in recovering their rich cultural values, but such recovery ought to be in line with the demands of the modern time.

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